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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,142	07/24/2006	Markus Lonn	1034456-000046	4986

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EXAMINER	
MAI, TAN V	

ART UNIT	PAPER NUMBER
2193	

NOTIFICATION DATE	DELIVERY MODE
08/27/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary	Application No.	Applicant(s)	
	10/587,142	LONN, MARKUS	
	Examiner	Art Unit	
	Tan V. Mai	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 May 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/31&4/20/07,7/24/*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marcantonio et al (Applicant's admission Prior Art) in view of Winograd (Applicant's admission Prior Art).

As per independent claim 1, Marcantonio et al disclose, e.g., see Fig. 7, the invention substantially as claimed, including: an automatic control device (col. 3, lines 23-25) comprises input means (Fig. 7, element 16, col. 3, lines 25-27 "obtaining a set of samples ...in a normal condition", col. lines 59-64 and col 7, lines 9-10); computing means (Fig. 7, element 18) for computing a parameter with discrete Fourier transform (col. 3, lines 27-30, col. 5, lines 19-21) and for comparing (col. 5, lines 21-23); initiating means (Fig. 7, element 20) for initiating a control function in response to parameter meeting the predefined condition (col. 5, lines 36-39). It is noted that Marcantonio et al do not specifically detail the claimed (1) "said input means being arranged to input a predefined number of samples per cycle of the nominal frequency" and (2) "said computing means ... with a discrete Fourier transform algorithm optimized on the basis of fixed coefficients ... of the nominal frequency". However, the features are old and well known in the art. For example, Winograd discloses a computer system for performing nested loop operations to effect a discrete Fourier transform having the equivalent

feature of (1) "said input means being arranged to input a predefined number of samples per cycle of the nominal frequency" (see col. 3, lines 26-30) and (2) "said computing means ... with a discrete Fourier transform algorithm optimized on the basis of fixed coefficients ... of the nominal frequency" (see col. 5, lines 37-40, col. 8, lines 12-15 and lines 40-46; col. 18, lines 43- 60; col. 29, lines 39-45; the "composite coefficients" can be identified with the fixed coefficients, since they are calculated in an initialization phase, i.e. once for a given number N of samples per one cycle of the nominal frequency). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Winograd in Marcantonio et al, thereby making the claimed invention, because the proposed device is an automatic control device as claimed.

As per dependent claims 2-10 and 13-19, the detail features are obvious to a person having ordinary skill in the art.

Due to the similarity of method claim 11-12 and 20 to apparatus claims 1-10 and 13-19, they are rejected under a similar rationale.

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rahman et al (Applicant's admission Prior Art) in view of Winograd (Applicant's admission Prior Art).

As per independent claim 1, Rahman et al disclose, e.g., see Fig. 7, the invention substantially as claimed, including: an automatic control device (col. 3, lines 17-29), comprising input means for inputting samples comprising measured values of cyclic

current (col. 3, lines 46- 49) with a defined nominal frequency (the measured currents are alternating currents and comprise therefore a defined frequency); computing means for computing a parameter on the basis of said samples (col. 3, lines 50-53 and lines 61-64 for the use of a discrete Fourier transform), and for comparing the computed parameter to a predefined condition (col. 3, lines 53-55); initiating means for initiating a control function in response to the parameter meeting the predefined condition (col. 4, lines 3-6). It is noted that a Rahman et al do not specifically detail the claimed (1) "said input means being arranged to input a predefined number of samples per cycle of the nominal frequency" and (2) "said computing means ... with a discrete Fourier transform algorithm optimized on the basis of fixed coefficients ... of the nominal frequency". However, the features are old and well known in the art. For example, Winograd discloses a computer system for performing nested loop operations to effect a discrete Fourier transform having the equivalent feature of (1) "said input means being arranged to input a predefined number of samples per cycle of the nominal frequency" (see col. 3, lines 26-30) and (2) "said computing means ... with a discrete Fourier transform algorithm optimized on the basis of fixed coefficients ... of the nominal frequency" (see col. 5, lines 37-40, col. 8, lines 12-15 and lines 40-46; col. 18, lines 43- 60; col. 29, lines 39-45; the "composite coefficients" can be identified with the fixed coefficients, since they are calculated in an initialization phase, i.e. once for a given number N of samples per one cycle of the nominal frequency). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Winograd in

Rahman et al, thereby making the claimed invention, because the proposed device is an automatic control device as claimed.

As per dependent claims 2-10 and 13-19, the detail features are obvious to a person having ordinary skill in the art.

Due to the similarity of method claim 11-12 and 20 to apparatus claims 1-10 and 13-19, they are rejected under a similar rationale.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cited reference is art of interest.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan V. Mai whose telephone number is (571) 272-3726. The examiner can normally be reached on Mon-Wed from 9:30am to 2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock, Jr. can be reached on (571) 272-3759. The fax phone number for the organization where this application or proceeding is assigned is:

Official (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

/Tan V Mai/
Primary Examiner, Art Unit 2193